

Application No. 09/817,123
Response dated February 2, 2006
Final Office Action of November 2, 2005

Docket No.: 21987-00054-US

REMARKS

Claims 1, 6-15, and 39-40 remain pending in this Application. Claims 1 and 6 are independent. No claims have been amended, added, or canceled by this Request for Reconsideration.

Favorable reconsideration and allowance of this application is requested in light of the arguments and remarks below.

Unpatentability Rejections over Gilboa, Zalewski and Hikawa et al.

Withdrawal of the rejection of claims 1, 6, 7, 10, 11, 15 and 39-40 under 35 U.S.C 103(a) as being unpatentable over Gilboa (US 5,853,327) in view of Zalewski (US 5,991,693) and Hikawa et al (US 5,526,306) is requested. The Examiner has failed to make a *prima facie* case of obviousness.

Applicant reiterates that, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, *the prior art reference must teach or suggest all the claim limitations.*¹ Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.²

At least with respect to independent claims 1 and 6, as well as various dependent claims, the applied art still fails to teach or suggest all the claimed limitations, either explicitly or implicitly.

Discussion of Applicant's Disclosure

In various aspects and embodiments, a data carrier obtains necessary electric power and information by receiving a radio wave from a reader through an antenna and an information

¹ See MPEP §2143.

² *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and See MPEP §2143.

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communication unit, and a control unit executes a required process based on the above information and information stored in a multi-value memory. A surface/underside judging unit detects the surface or the underside of the data carrier from a direction of an electric current flowing across a coil, and has different functions executed based on a result of this detection.

A method of transmitting and receiving information between a reader and a non-contact type data carrier includes transmitting a radio wave from a reader, and receiving the radio wave transmitted from the reader through a coil and generating operating electric power for the non-contact type data carrier. In addition, when a detection is made that a predetermined quantity of electric power has been generated, the reader is notified of this detection, and transmission of the radio wave from the reader is then interrupted. Transmission of the radio wave resumes when a predetermined time elapses after interruption.

The present specification discloses the following:

[0119] The power generation notifying unit 4 detects that the operation power generating unit 3 stores the capacitor with a predetermined quantity of electric power, and notifies the reader of this effect. The power generation notifying unit 4 outputs a completion-of-charging signal S1 to the antenna circuit 2, and notifies the reader of it by transmitting the radio waves 21 from the antenna circuit 2. A communication frequency of the radio waves used herein are, for example, 125 kHz band, 13-56 MHz band and other microwave band.

Further, FIGS. 2 and 3 of Applicants' disclosure, reproduced below, clearly show this feature, *e.g.*, POWER GENERATION NOTIFYING UNIT 4 and step S4, NOTIFY OF PREDETERMINED QUANTITY OF ELECTRIC POWER BEING GENERATED, respectively.

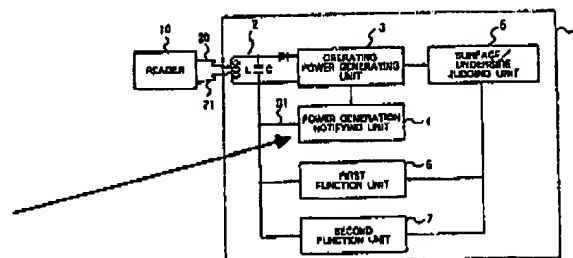


FIG. 2

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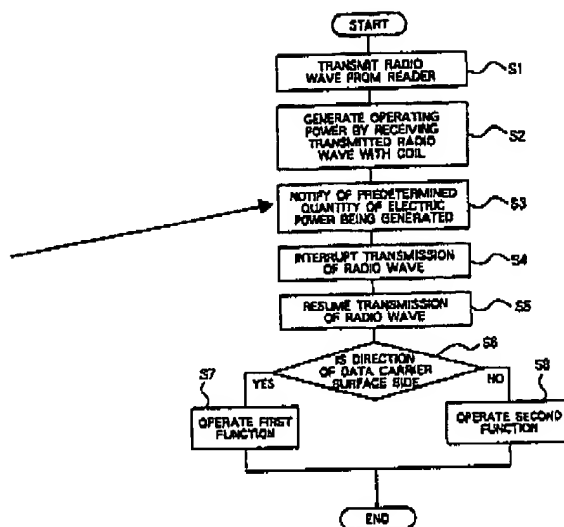


FIG. 3

Discussion of Gilboa

Gilboa is directed to a combination computer game and board game including a game board, a plurality of toy figures selectably positionable by a player with respect to the game board, an apparatus for automatically and non-discretely sensing the location of the toy figures relative to the game board and responsively actuating an audio/visual display sequence. Gilboa's apparatus is operative in a wireless mode of operation.

Gilboa also discloses that an excitation coil is associated with each cell on the game table and a sensing antenna is associated with the entire game table. Playing pieces or game or toy figures, each including a transponder, are located on some of the cells of the game table. A plurality of excitation coils generate query signals which are received by the transponders of all playing pieces located on cells at which a query signal is generated. The transponder in the playing piece then generates a coded answer signal, preferably having a frequency unique to the piece or the type of piece, which is received by the sensing antenna. The antenna, which may receive more than one answer signal, generates a sensor signal responsive to the answer signal.

According to a preferred embodiment of Gilboa, unique signals, preferably discrete frequencies generated by the different pieces or types of pieces, are utilized not only for uniquely identifying the pieces or types of pieces, but also for determining the location of each piece on

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the table. Gilboa's apparatus scans all of the rows and all of the columns, and if a given piece (or type of piece) generates a unique frequency, that frequency will be detected only for the row and column on which the piece is located. In this way, by determining the row and column which gave the unique response associated with the piece, the location of the piece is determined.

Contrary to the Examiner's unsubstantiated assertions, discussed further below, Gilboa does not teach or suggest any means for notifying the reader or control device that the received driving electric power has reached a predetermined quantity of electric power.

Discussion of Zalewski

Zalewski relates to human-computer interfacing, specifically to a method and apparatus enabling computerized interaction and instruction through a set of interactive, trackable, autonomous, independent, hand-movable, and wireless bodies, each of which may contain a screen and speaker enabling each body to display graphics and emit sounds received from a training system via a wireless transmission device connected to a personal computer running training software.

The Examiner admits that Gilboa is silent regarding the use of a control unit with associated memory, but offers Zalewski as disclosing a control unit with game pieces. However, the Examiner also admits that Zalewski is silent regarding the use of a coil resonance system or in the locating of the game pieces on a game body.

Discussion of Hikawa

The Examiner further admits that both Gilboa and Zalewski is silent on multi-state (*i.e.*, more than two states) memory used with their game pieces, and offers Hikawa as making up for this deficiency.

Hikawa is directed to a read-only memory (ROM) and a method of fabricating the ROM. In order to improve the degree of storage data integration, side walls are selectively formed on side surfaces of word lines to serve as masks for changing ON-state current values of memory cells by changing widths or lengths of active regions of the memory cells, thereby forming several of types of memory cells having different electrical properties. Storage data per memory cell is therefore multi-valued so that the number of memory cells may be reduced.

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Specific Deficiencies of the Applied Art

The applied art, taken alone or in combination, does not teach or suggest a game apparatus which includes, among other features, “means for notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power...”, as recited in independent claim 1.

Further, the applied art, taken alone or in combination, does not teach or suggest a information communication system which includes, among other features, “...means for providing a notification that the received driving electric power has reached a predetermined quantity of electric power...”, as recited in independent claim 6.

Applicants again respectfully traverse the Examiner’s assertion that the recited limitation in claims 1 and 6 of “means for notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power” is “implicitly” provided by the teachings of Gilboa.

Specifically, the Examiner’s position appears to be that, merely because the game pieces of Gilboa appear to transmit data to a control device, such transmissions necessarily provide notification “...that the received driving electric power has reached a predetermined quantity of electric power.”

Applicants respectfully disagree with the Examiner, and submit that the Examiner’s assertion of “implicit” features in the applied art is deficient, thus negating any inference that he has met his burden in establishing a *prima facie* case for unpatentability, as further discussed below.

Required Motivation to Combine and Improper Hindsight

An essential evidentiary component of an obviousness rejection is a teaching or suggestion or motivation to combine the prior art references.³ Combining prior art references without evidence of a suggestion, teaching or motivation simply takes the inventors’ disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.⁴

³ *C.R. Bard, Inc. v. M3 Systems, Inc.*, 48 USPQ2d 1225 (Fed. Cir. 1998)

⁴ *Interconnect Planning Corp. v. Feil*, 227 USPQ 543 (Fed. Cir. 1985)

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"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art."⁵ Further with regard to the level of skill of practitioners in the art, there is nothing in the statutes or the case law which makes "that which is within the capabilities of one skilled in the art" synonymous with obviousness.⁶ The level of skill in the art cannot be relied upon to provide the suggestion to combine references.⁷

Discussion of "Implicit Disclosure"

The MPEP states:

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968) (A process for catalytically producing carbon disulfide by reacting sulfur vapor and methane in the presence of charcoal at a temperature of "about 750-830°C was found to be met by a reference which expressly taught the same process at 700°C because the reference recognized the possibility of using temperatures greater than 750°C. The reference disclosed that catalytic processes for converting methane with sulfur vapors into carbon disulfide at temperatures greater than 750°C (albeit without charcoal) was known, and that 700°C was "much lower than had previously proved feasible."); *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976) (Reference disclosure of a compound where the R-S-R' portion has "at least one methylene group attached to the sulfur atom" implies that the other R group attached to the sulfur atom can be other than methylene and therefore suggests asymmetric dialkyl moieties.).

MPEP 2144.01.

The MPEP allows implicit disclosure when a proper inference can be drawn by a person with skill in the art from the teachings of the reference itself. This is not the case with Gilboa.

Applicants point out that the "response" by Gilboa is purely in the form of a resonance signal formed by the LC circuit. As such, this circuit is going to respond to a variety of different

⁵ See MPEP §2143.01, citing *In re Rouffet*, 149 F.3d, 1350, 1357, 47 USPQ2d 1453, 1457-8 (Fed. Cir. 1998).

⁶ *Ex parte Gerlach and Woerner*, 212 USPQ 471 (PTO Bd. App. 1980).

⁷ See MPEP §2143.01, citing *Al-Site Corp. v. VSI Int'l Inc.*, 50 USPQ2d 1161 (Fed. Cir. 1999).

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levels of received electrical power. In other words, each piece is going to respond all the time at some point, irrespective of the quantity of electrical power. So the fact that you get a "response" says nothing about the *amount* of electrical power that has been stored/received.

In fact, as can be seen at Gilboa col. 13, line 55, Gilboa's system separately determines the signal power from each piece. Applicants pose the following question to the Examiner -- Why would that have to happen if all pieces had all reached the same "predetermined" quantity of electrical power?

Stated another way, each piece in Gilboa responds differently; this is not the same as Applicants' claimed invention, where each piece has to reach the "predetermined" quantity of electrical power, and notify the control unit after reaching this level of power.

Further, and with respect to Gilboa's embodiment in FIG. 10 and col. 11, line 16 *et seq.*, it appears that the Examiner is combining Gilboa's "no power" embodiment (*i.e.*, where Gilboa uses a resonance circuit in lieu of a battery) with the other references to show a more advanced control unit. But without Gilboa's battery, there is no data transfer, and the system is incapable of working as Applicants have disclosed and claimed.

Therefore, Applicants submit that the Examiner is mixing and matching incompatible elements from the reference, using impermissible hindsight to do so. In other words, this section of *Gilboa clearly teaches away* from using a battery source, which would be "implicitly" required to implement the teachings of Zalewski, which the Examiner offers as teaching using a memory.

The resonant circuit of Gilboa would clearly not retain sufficient energy to power a transmitter or memory, for example, because Gilboa's resonant circuit would immediately "collapse" and reradiate, given the underlying physics of RLC resonance phenomenon.

Applicants again submit that this is an overreaching interpretation of the applied art to assert that the above-cited limitation is "implicitly providing the means for notifying...."

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Examiner's Burden of Establishing a Prima Facie case of Unpatentability

The MPEP requires that the Examiner meet his burden to establish a *prima facie* case of unpatentability and that, once the burden is met, the Applicant has the countervailing burden of rebutting the *prima facie* case, *once established*. In the Final Official Action, the Examiner appears to have this requirement exactly backwards.

For example, the Examiner asserts in the "Response to Arguments" section that "[t]he applicant has provided no evidence or reference to the disclosure of Gilboa their *[sic]* would support their interpretation that previously presented implicit feature of Gilboa and the examiner's assertions related thereto are deficient beyond mere allegation."

As best can be understood by Applicants, the Examiner appears to be offering a novel legal proposition that *Applicants* have the burden of proving that an allegedly implicit feature is not in the applied art, even if the Examiner has merely alleged the implicit nature of the disclosure.

Rather than meeting his burden in establishing a clear record that unambiguously identifies where the reference suggests or implies the limitation in dispute, or providing other evidence that confirms that a person with skill in the art would reasonably be expected draw an inference supporting the Examiner's position, the Examiner has resorted to mere assertion, apparently grounded only in impermissible hindsight, using Applicants' disclosure against them. There is no evidence of record supporting the Examiner's position on "implicit" disclosure of Gilboa or any other reference, particularly with respect to the recited "means for providing a notification that the received driving electric power has reached a predetermined quantity of electric power".

Allowance of Independent Claims 1 and 6

Therefore, since the applied art does not teach or suggest all the limitations recited in independent claims 1 and 6, and since the Examiner's assertion of features in the applied art does not meet the requirements of the MPEP, the Examiner has failed to make his required *prima facie* case of obviousness. Accordingly, reconsideration and allowance of independent claims 1 and 6 are requested.

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Further, since dependent claims 7-15 and 39-40 variously and ultimately depend from allowable claims 1 and 6, reconsideration and allowance of these dependent claims is also requested, without recourse to the additional patentable features recited therein.

Comments on Selected Dependent Claims

The Examiner offers GB 2103943 FIG. 3 (incorporated by reference in Gilboa) as disclosing the limitation in claim 39 (and similarly for claim 40) reciting "...after receiving a notification that the received driving electric power has reached the predetermined quantity of electric power, the first control device interrupts a radio wave transmission for a predetermined period of time."

The incorporated reference does not disclose this feature as asserted by the Examiner. What GB 2103943 does disclose is multiple resonant circuits, and a means for differentiating responses among the various resonant circuits. FIG. 3 discloses, *inter alia*, that the receiver signal is blanked during a current pulse, and that the receiver signal, after the pulse completes, is a dampened sinusoidal signal that is counted in a manner that can be used to determine which of the multiple resonant circuits is responding. GB 2103943 is silent on any teaching or suggestion that a "first control device interrupts a radio wave transmission for a predetermined period of time."

Accordingly, since the applied art does not teach or suggest all the recited limitations, reconsideration and allowance of dependent claims 39 and 40 are requested.

Unpatentability Rejections over Gilboa, Zalewski, Hikawa et al. and Bergeron

Withdrawal of the rejection of claims 8, 9, and 12-14 under 35 U.S.C 103(a) as being unpatentable over Gilboa (US 5,853,327) in view of Zalewski (US 5,991,693), Hikawa et al (US 5,526,306), and Bergeron (US 4,764,666) is requested. The legal requirements for unpatentability have been set forth above.

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Bergeron fails to Make up for the Deficiencies of Gilboa, Zalewski, and Hikawa et al

Bergeron is offered as teaching a contact terminal for transmitting and receiving information from/to programmable game entry cards used in an on-line wagering system.

Whether or not Bergeron teaches or suggest that for which it is offered by the Examiner, Bergeron does not make up for the previously identified deficiencies of Gilboa, Zalewski, and Hikawa et al., at least with respect to independent claim 6, from which dependent claims 8-14 variously and ultimately depend.

Therefore, since the applied art, taken alone or in combination, does not teach or suggest all the claimed limitations, withdrawal of the rejection and allowance of claims 8-14 are requested.

Further Comments on the Examiner's "Response to Arguments"

The Examiner observes that claims 1 and 6 incorporate "means-plus-function" type language. Applicants do not completely understand the Examiner's further remarks that "[the means-plus-function language] therefore incorporate any equivalent structure capable of performing the claimed functionality until such time as the applicant were to so limit the interpretation of their claim language through invoking USC 112 6th paragraph."

Use of "means for" without reciting any structure is effectively the *sine qua non* of patent claiming under 35 U.S.C. §112, sixth paragraph. One other bedrock principle of means-plus-function claim limitations is that a reference, in order to teach or suggest the means-plus-function limitation, must first identify performance of the *identical* function as that claimed. If the identical function is not disclosed, the inquiry ends there. If the identical function *is* performed, then the investigation expands to identify the identical structure, or equivalent structure that performs the recited function.

In this application, the relevant function is "notifying the first control device that the received driving electric power has reached a predetermined quantity of electric power." None of the applied art teach or suggest this function, either explicitly or implicitly.

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Since the applied art does not teach or suggest the identical function, then no further inquiry is required. However, there is no identical or equivalent structure in any of the applied art because the function is not performed, and is not recognized as needing to be performed.

Conclusion

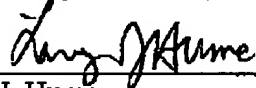
In view of the above remarks, Applicant believes that each of pending claims 1, 6-15, 39, and 40 in this application is in immediate condition for allowance. An early indication of the same would be appreciated.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way or to clarify any issues before Appeal, the undersigned attorney is available at the telephone number indicated below.

Although no fees are believed to be due with this response, for any fees that are due, including fees for extensions of time, the Director is hereby authorized to charge any fees or credit any overpayment during the pendency of this application to CBLH Deposit Account No. 22-0185, under Order No. 21987-00054-US from which the undersigned is authorized to draw.

Respectfully submitted,

By



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